Appl. No. 10/767,227
Amdt. dated May 25, 2004
Preliminary Amendment

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

1. (Amended)   A method for allocating bandwidth of a data network to a plurality of data streams, comprising:

specifying apportionment of the bandwidth to a plurality of data classes;

receiving a plurality of data streams wherein each data stream has at least one attribute that associates the data stream with one of the data classes;

from a plurality of acceptable transfer rates, negotiating a transfer rate for each data stream, wherein the transfer rate is limited to the bandwidth apportioned to the data class associated with each data stream; and

transmitting the data streams on the data network at the negotiated transfer rates.

a stream processor, having logic to receive the data stream and to;

an output coupled to the stream processor, having logic to receive the data stream and transmit the data stream on the data network at the negotiated transfer rate.

2. (Original)   The method of claim 1 wherein the step of receiving comprises steps of:

receiving stream annotations associated with each of the data streams; and

activating a plug-in to receive each data stream, wherein the type of plug-in is determined from the stream annotations.

3. (Original)   The method of claim 1 wherein the step of negotiating comprises steps of:

determining a plurality of acceptable transmission rates for each data stream; and

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negotiating a transfer rate for each data stream, wherein the transfer rate is a selected one of the acceptable transmission rates and is limited to the bandwidth apportioned to the data class associated with each data stream.

4.   (Original)   The method of claim 1 wherein the step of transmitting comprises steps of:

transforming each data stream to the negotiated transfer rate; and

transmitting the data streams on the data network at the negotiated transfer rates.

5.   (Original)   The method of claim 4 wherein the step of transforming comprises a step of thinning, transcoding or decimating the data stream to the negotiated transfer rate.

6.   (Original)   The method of claim 1 wherein the transfer rate is a first transfer rate and the method further comprises steps of:

determining unallocated bandwidth on the data network;

negotiating a second transfer rate for at least one data stream, wherein the second transfer rate uses the unallocated bandwidth;

transforming the at least one data stream to the negotiated second transfer rate; and

transmitting the at least one data stream on the data network at the second transfer rate.

7.   (Original)   The method of claim 6 further comprises steps of:

receiving at least a second data stream having an associated data class;

negotiating a third transfer rate for the at least one data stream, wherein the third transfer rate is limited to the bandwidth apportioned to the data class associated with the at least one data stream;

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negotiating a fourth transfer rate for the at least second data stream, wherein the fourth transfer rate is limited to the bandwidth apportioned to the data class associated with the at least second data stream; and

transmitting on the data network, the at least one data stream at the third transfer rate and the at least a second data stream at the fourth data rate.

8-20 (cancelled)

21.   (New) In a data network configured to transmit data streams at negotiated transfer rates, wherein each of a plurality of data streams has at least one attribute that associates the data stream with a particular data class, and wherein a negotiated transfer rate is limited to bandwidth apportioned to the data class of a data stream, the improvement comprising:

allocating bandwidth to the data streams by negotiating a transfer rate for each of the plurality of data streams from a plurality of acceptable transfer rates prior to transmitting each data stream at the negotiated transfer rate.

22.   (New) A system for allocating bandwidth of a data network to a plurality of data streams, comprising:

means for determine a plurality of acceptable transmission rates for a data stream;

means for negotiating a transfer rate for the data stream, wherein the transfer rate is a selected one of the plurality of acceptable transmission rates and is limited to a portion of the bandwidth apportioned to a data class associated the data stream; and

means for transmitting the data stream on the data network at the negotiated transfer rate.